3.3.4.5.2 User Inputs. The MOSAIC application allows the operator to initiate downloading, viewing, and saving a specified external file on the WWW or to view a local file.

3.3.4.5.3 System Inputs. None.

3.3.4.5.4 Termination. MOSAIC is terminated by moving the pointer to the File menu on the MOSAIC Main Menu and selecting the **Exit Program** option.

3.3.4.5.5 Restart. See MOSAIC Initialization.

3.3.4.5.6 Outputs. Outputs from the MOSAIC application include operator-desired downloaded documents and various informational, warning, and error messages from the system based on incorrect operator actions or unavailability of specified files and documents.

3.3.5 External System Interface (ESI). ESI Provides a link between JOPES and TCC scheduling systems. This software is really two segments: ESISRV, the data segment, and TCCESI, the application software segment. The segments are designed to run on Sun SPARC workstations running Solaris V2.3. They depend on the JOPES Core Database and the Oracle 7.1 Relational Database Management System (RDBMS). ESI provides a specified group of users, called Supported CINC site validators, with the capability to identify and manage the force requirements that should be scheduled for transportation. It also permits USTRANSCOM and its component commands to indicate the status of the scheduling of these requirements. Permissions are required to operate this software based on UNIX IDs. A special group identifier is required to protect data integrity and only users associated with the group are allowed to perform validation (also called TCC/ESI). Additional information on ESI can be found in the *JOPES User's Guide Update*.

3.3.6 Information Management System/Reference File Manager (IMS/RFM). IMS/RFM provides bulk data extraction/insertion for movement of reference files and TPFDD data between applications and the JOPES Core Database. IMS is a Technology Insertion Program (TIP) software package that has been incorporated into GCCS. IMS is a tool for centralized TPFDD management among the GCCS user applications and the server. RFM is similar to IMS. It is used for downloading standard reference files such as ASSETS, CHSTR, TUCHA, GEOFILE, etc. from the JOPES Core Database.

3.3.6.1 Initialization—IMS. The IMS application is invoked by double clicking the left mouse button on the **IMS** icon within the main launch window. The TIP Information Management Service - Version 2.0.7 window is displayed as a result of this action.

3.3.6.2 User Inputs—IMS. The IMS application is initiated by operator action to download TPFDDs to the various TIP applications such as DART and Joint Flow Analysis System for Transportation (JFAST). Conversion routines are embedded within the IMS software to automatically convert TPFDD files into the format required by the target application (i.e., DART and JFAST). In addition, IMS allows the user to transfer TPFDDs to the GCCS integrated database.

3.3.6.3 System Inputs—IMS. None.

3.3.6.4 Termination—IMS. Click on the red **Quit** command button located on the bottom of the TIP Information Management Service - Version 2.0.7 window.

3.3.6.5 Restart—IMS. Not applicable.

3.3.6.6 Outputs—IMS. File transfers of TPFDDs between DART and JFAST via IMS and, when applicable, TPFDD data sent to the GCCS integrated database.

3.3.6.7 Initialization—RFM. The RFM application is invoked by double clicking the left mouse button on the **RFM** icon within the main launch window. The Reference Manager - Version 2.0.7 window is displayed as a result of this action.

3.3.6.8 User Inputs—RFM. The RFM application is initiated by the operator to download Reference Files from the WWMCCS mainframe to the various TIP applications such as DART, LOGSAFE, FAPES, and JFAST.

3.3.6.9 System Inputs—RFM. None.

3.3.6.10 Termination—RFM. Click on the red **Quit** command button located on the bottom of the Reference Manager - Version 2.0.7 window.

3.3.6.11 Restart—RFM. Not applicable.

3.3.6.12 Outputs—RFM. File transfers of Reference Files (i.e., GEOFILE and TUCHA) between DART, WWMCCS mainframe, LOGSAFE, FAPES, and JFAST via RFM.

3.3.7 Airfields. This Database was a flat file resident on the WWMCCS Honeywell mainframe. Data is available on over 40,000 airfields worldwide. All data is supplied by the Defense Mapping Agency Aerospace Center (DMAAC) and is updated monthly. Reverse engineering was used to rehost the database using the RDBMS in the Oracle Standard Query Language (SQL). The system runs under the Solaris 2.3 environment in GCCS V2.1. A COTS GUI, "Screen Machine," is used at the front end. This application provides the Joint Staff and GCCS community a wide range of data for use in crisis management and national emergencies. The data retrieval system produces on-screen or printed information in a pre-formatted, one-line summary report based on user-specified criteria. A "One-Line Summary Report" can be generated in a few seconds but users must be careful to limit the number of airfields in a single execution or the number of report screens can be excessively large.

3.3.7.1 Initialization. The Airfields application is invoked by double clicking the left mouse button on the **Airfields** (AFS) icon within the GCCS desktop main launch window.

3.3.7.2 User Inputs. User inputs include operator actions to retrieve, view, and print the specified Airfields-related information contained in the "One-Line Summary Report."

3.3.7.3 System Inputs. None.

3.3.7.4 Termination. Move the pointer to the **Exit** option on the File menu in the Airfields main window and click the left mouse button.

3.3.7.5 Restart. Not applicable.

3.3.7.6 Outputs. The output from the Airfields application is the Airfield-related data contained in the "One-Line Summary Report." Additional reports will be available in subsequent versions of the Airfields software.

3.3.8 Theater Analysis and Replanning Graphical Execution Toolkit (TARGET). TARGET aids the planner in all phases of crisis action planning, including Situation Assessment and Development, COA Development and Selection, Execution Planning, and Execution. It facilitates simultaneous access to a distributed network of graphic planning cells sharing a common reasoning infrastructure. These tools facilitate rapid planning and COA development and analysis among the Joint Planning and Execution Community (JPEC) sites in a distributed, collaborative mode. This enables current assessment of plan generation, scheduling, and analysis processes between the Joint Staff, supported and supporting CINCs, their components, and the deployed Joint Task Force (JTF). The main window of Target is shown in Figure 3-5.

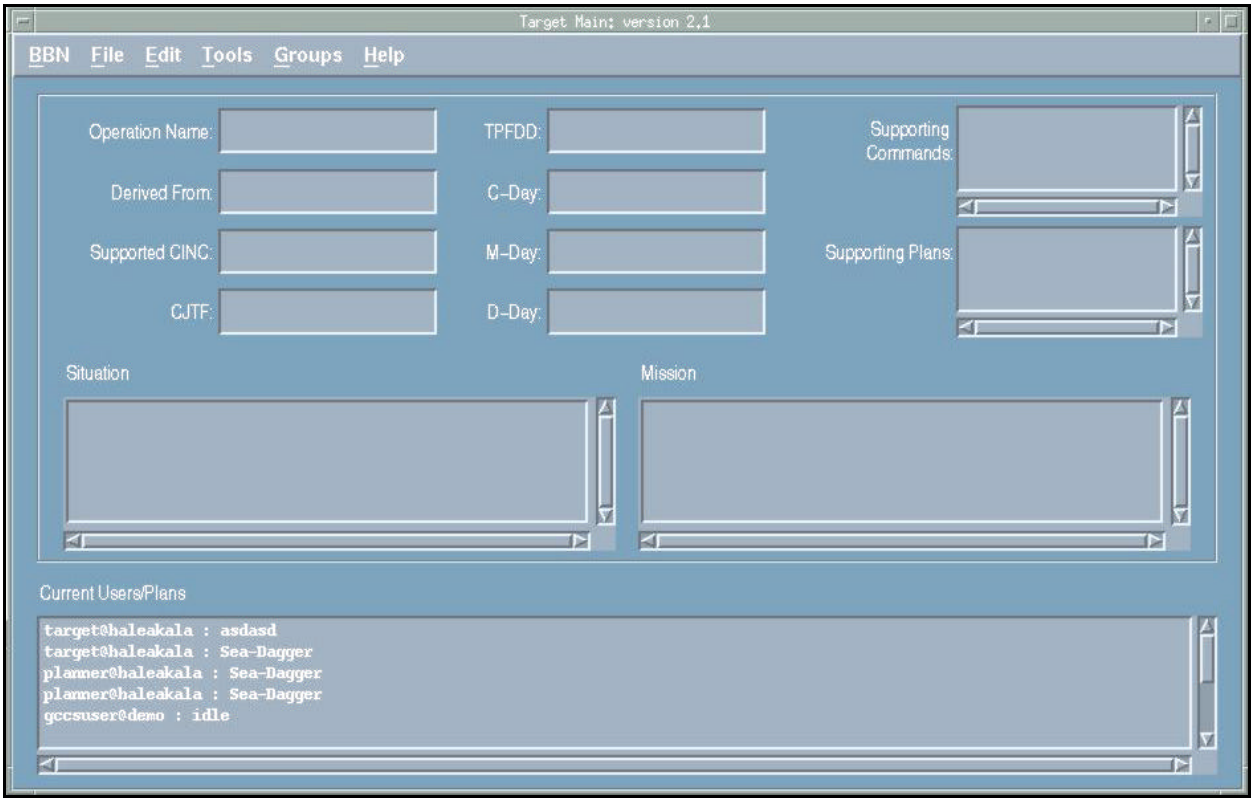

Figure 3-5. TARGET Main Window

3.3.8.1 Initialization. The TARGET application is invoked by double clicking the left mouse button on the **TARGET** icon within the main launch window. The TARGET Main: Version 2.1 window is displayed as a result of this action.

3.3.8.2 User Inputs. The Import function on the File menu allows the user to import various media into a given TARGET operation/plan. Items that can be imported include: documents, messages (Embassy SITREP, Warning Order, etc.), images (pictures or Raster files), databases, sound byte files, or Shared Map Planning (SMP) overlays.

The COAST functionality within TARGET allows for various operator inputs for COA planning and evaluation. These inputs include: general mission criteria, desired end-state (results), mission assumptions/constraints, critical intelligence requirements, expected enemy courses of action, etc.

3.3.8.3 System Inputs. None.

3.3.8.4 Termination. TARGET functionality is terminated by moving the pointer to the File menu on the TARGET Main: Version 2.1 window and selecting the **Quit** option.

3.3.8.5 Restart. Not applicable.

3.3.8.6 Outputs. The outputs from the TARGET application include: real-time sharing of COA analysis results, information briefings, intelligence, and weather imagery, sharing of maps, charts, and geodesy, including live, collaborative map briefings, and air/land/sea maneuver plans.

3.3.9 Global Transportation Network (GTN). GTN provides a communications interface based on the HYPERchannel NETwork EXecutive (NETEX) application program. GTN is both a transportation system and a C^2 system that provides USTRANSCOM and its component commands with integrated, automated support to plan, provide, and control the common user airlift, surface lift, and terminal services that deploy and sustain DoD forces globally during both peace and war. GTN receives data from existing Government and commercial transportation computer systems and integrates this data into a single database. This integrated data provides management information not previously available from the source systems. GTN is implemented in GCCS as a Virtual Terminal-100 (VT-100) Emulator and provides a transaction-oriented, event-driven, data transfer capability.

3.3.9.1 Initialization. The GTN system and associated main menu is invoked by logging on to the VT-100 emulator with a valid user name and password.

3.3.9.2 User Inputs. The user inputs to the GTN application are based on operator actions including:

- Air passenger queries based on Unit Identification Code (UIC), Unit Line Number (ULN), Social Security Number (SSN), or Name.
- Air cargo queries based on National Stock Number (NSN), Transportation Control Number (TCN), ULN, UIC, Department of Defense Identification Code (DODIC), Aircraft Mission Number, or Item Name.
- Air schedule queries based on Passenger, Cargo, Aircraft Mission Number, UIC, or ULN.
- Surface cargo queries based on UIC, ULN, Ship Name, NSN, TCN, DODIC, Item Name, or Container ID.
- Surface schedule queries based on Ship Name.

3.3.9.3 System Inputs. None.

3.3.9.4 Termination. The GTN system is terminated with a two-step process. Within the GTN main menu,

the user must press the <F3> function key to return to the command line. Then, on the command line, the user must enter a **7** (Quit option) to exit the system.

3.3.9.5 Restart. Not applicable.

3.3.9.6 Outputs. The outputs from the GTN system consist of screen displays, hardcopy listings, or summary reports resulting from the following queries:

- Air passenger
- Air cargo
- Air schedule
- Surface cargo
- Surface schedule.

3.4 Common Tactical Picture Applications

3.4.1 Joint Maritime Command Information System (JMCIS). JMCIS provides a common tactical picture and also has the ability to use Defense Mapping Agency (DMA) raster and vector maps. It provides the CINCs and Commanders Joint Task Force (CJTFs) with a single, integrated Command, Control, Communications, and Intelligence (C^3I) system. It receives, processes, displays, maintains, and assesses the unit characteristics, employment scheduling, material condition, combat readiness, warfighting capabilities, positional information, and disposition of hostile and friendly forces. JMCIS applications display ground and air tracks. The Mapping, Charting, Geodesy and Imagery Joint Mapping ToolKit is a JMCIS utility that provides specialized mapping functions. JMCIS offers the "superset" of functionality of all Navy C2 systems including Operations Support System (OSS) and Naval Tactical Command System-Afloat (NTCS-A). JMCIS also interfaces with other systems such as Joint Deployable Intelligence Support System (JDISS). The initial JMCIS window is shown in Figure 3-6.

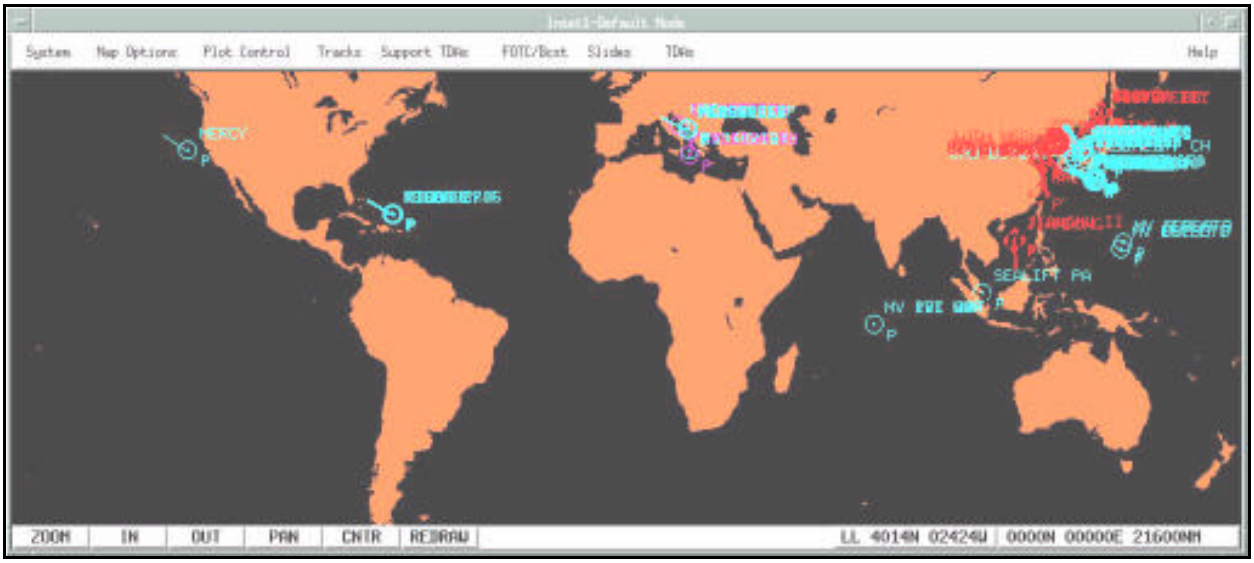

Figure 3-6. Initial JMCIS Window

3.4.1.1 Initialization. JMCIS functionality is invoked by double clicking the left mouse button on the

CHART icon within the main launch window.

3.4.1.2 User Inputs. Basic JMCIS user inputs include operator-created tracks including real and simulated training, overlays, Pimtracks, and Opnote messages.

3.4.1.3 System Inputs. JMCIS receives and decodes the following types of formatted messages: OTH GOLD contact reports, OTH GOLD overlays, OTH GOLD opnotes, and OTH GOLD FOTC SITREPS.

3.4.1.4 Termination. The System Menu is the first menu on the JMCIS System (Chart) Window. The only option under the System menu is **Exit.** Use this option to terminate all JMCIS functionality.

3.4.1.5 Restart. JMCIS can be restarted by selecting the **Restart Chart** option under the Chart menu on the UB menu bar.

3.4.1.6 Outputs. JMCIS encodes and transmits the following types of formatted messages: OTH GOLD contact reports, OTH GOLD overlays, OTH GOLD opnotes, and OTH GOLD FOTC SITREPS.

3.5 Other Mission Applications

3.5.1 GCCS Status of Resources and Training System (GSORTS). GSORTS provides identification, location, deployment status, availability, and resource information on U.S. military units. This information is obtained and kept current from operational units via U.S. Message Text Format (USMTF) messages over AUTODIN. Unit inputs consist of information on unit location, readiness of personnel, supplies and major equipment, personnel strength, and training. The location of specific units can be plotted on digitized maps produced by the DMA. GSORTS uses the Status of Resource Training System (SORTS) data input by services, ClNCs, and DoD agencies and received via *SQL*NET*. The SORTS database includes all defined Joint data elements. GSORTS query and display capabilities include: categories of units (ships, fighter aircraft, ground forces, etc); specific types of units (frigates, armor battalions, F-18's, etc); and by OPLAN, by specific unit (displays detailed status information). JOPES applications are provided with a "view" of the GSORTS database to extract data for insertion into JOPES OPLANS in the JOPES core database. Principal users include the JCS CINCs and Service staffs. The GSORTS main window is shown in Figure 3-7.

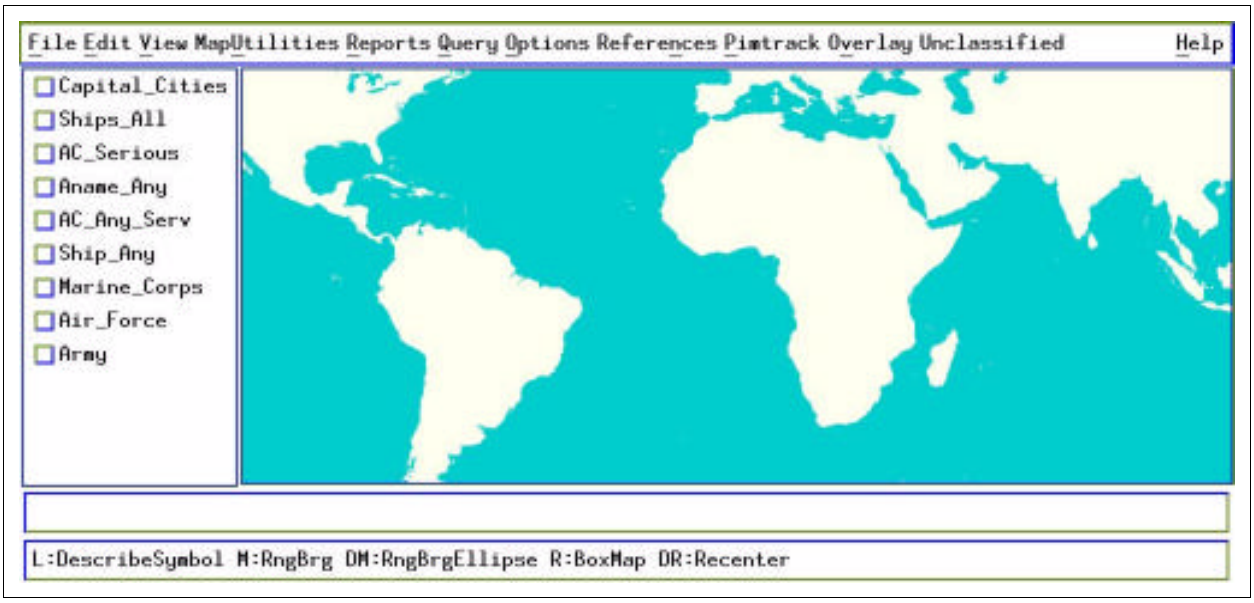

Figure 3-7. GSORTS Main Window

The Generalized Interactive Query System (GIQS) allows users to generate effective, complex queries of the GSORTS database with no prior knowledge of SQL. Users save, modify, and delete queries. Additionally, the user can learn about SQL and its syntax via the Display Query Text function. GIQS is an important background process for GSORTS that retrieves text data based on queries to the database. The GIQS Window is shown in Figure 3-8.

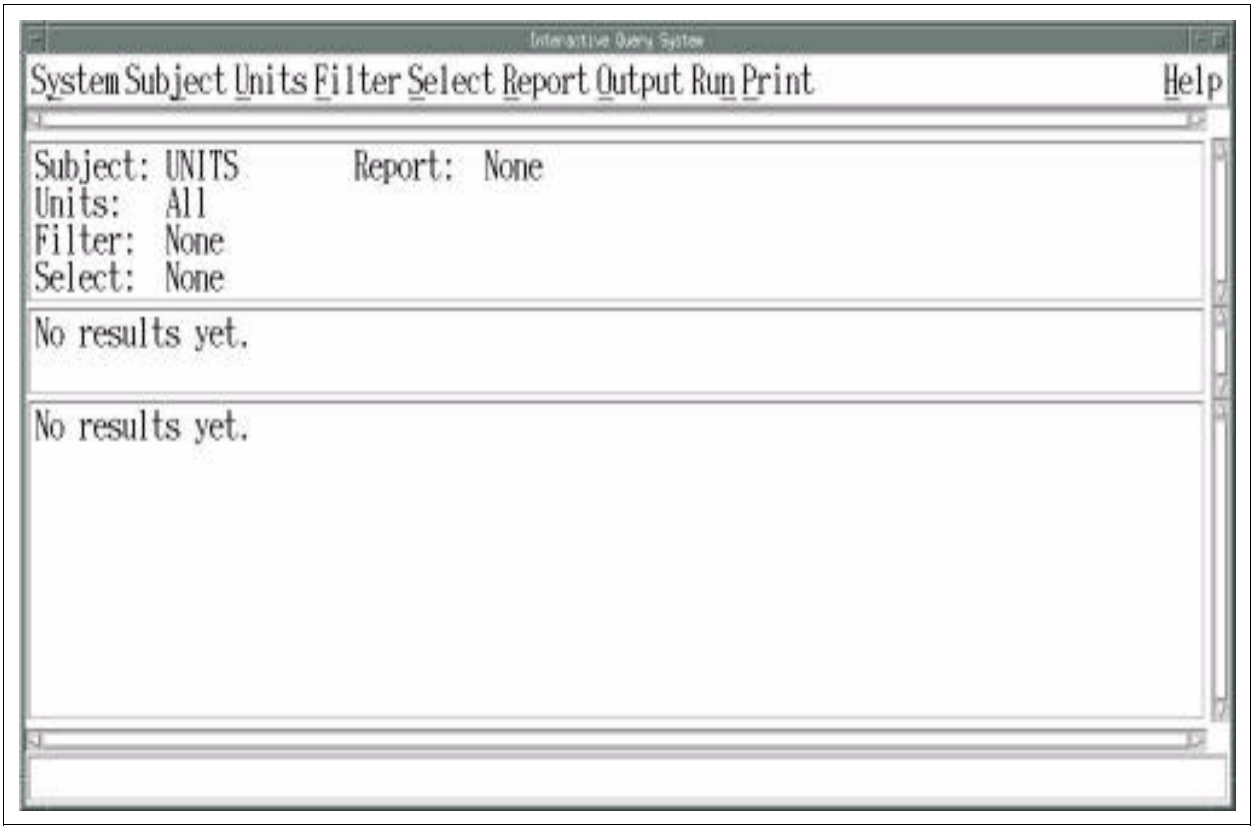

Figure 3-8. GIQS Query Window

3.5.1.1 Initialization. The GSORTS application and main window can be invoked by two methods. The first method is by double clicking the left mouse button on the **GSORTS** icon within the GCCS desktop main launch window. The second method is via the JNAV application. For those systems with a GUI-based JNAV window, GSORTS is invoked by pressing the **START** icon next to "Resources & Training" within the JNAV Netscape-based GUI window. For those systems with a text-based JNAV window, GSORTS is invoked by moving the cursor via <tab> to the START indicator immediately to the right of "Resources & Training" text and pressing <enter>. GIQS functionality is invoked via double clicking the left mouse button on the **GIQS** icon within the main launch window.

3.5.1.2 User Inputs. Canned queries and operator-created queries of the SORTS-related data within the GSORTS database.

3.5.1.3 System Inputs. SORTS-related data from the United States Air Force, Army, and Navy via SQL*NET. The Navy is responsible for reporting SORTS data for the Marine Corps, Coast Guard, and Military Sealift Command.

3.5.1.4 Termination. GSORTS is terminated by selecting the **Exit** option on the File menu within the main GSORTS window. GIQS is terminated by selecting the **Quit** option on the System menu within the main GIQS window.

3.5.1.5 Restart. Not applicable.

3.5.1.6 Outputs. Unit Reports based on operator queries regarding basic identity data, geolocation data, readiness data, major equipment data, transportable communications equipment data, operational plans, and personnel strength.

3.5.2 GCCS Air Tasking Order (ATO) Review Capability (GARC). GARC provides GCCS with the ability to receive and view USMTF ATO Confirmation (ATOCONF) messages disseminated by the Contingency Theater Automated Planning System (CTAPS) Version 5.1. Messages are received through e-mail and then automatically stored in the GCCS file system. Through a MOTIF-based Human Machine Interface (HMI), users can select from the received Air Tasking Orders (ATOs) and view the contents with a text editor. Users can also specify a filtering criteria before viewing the information. The Initial GARC Window is shown in Figure 3-9.

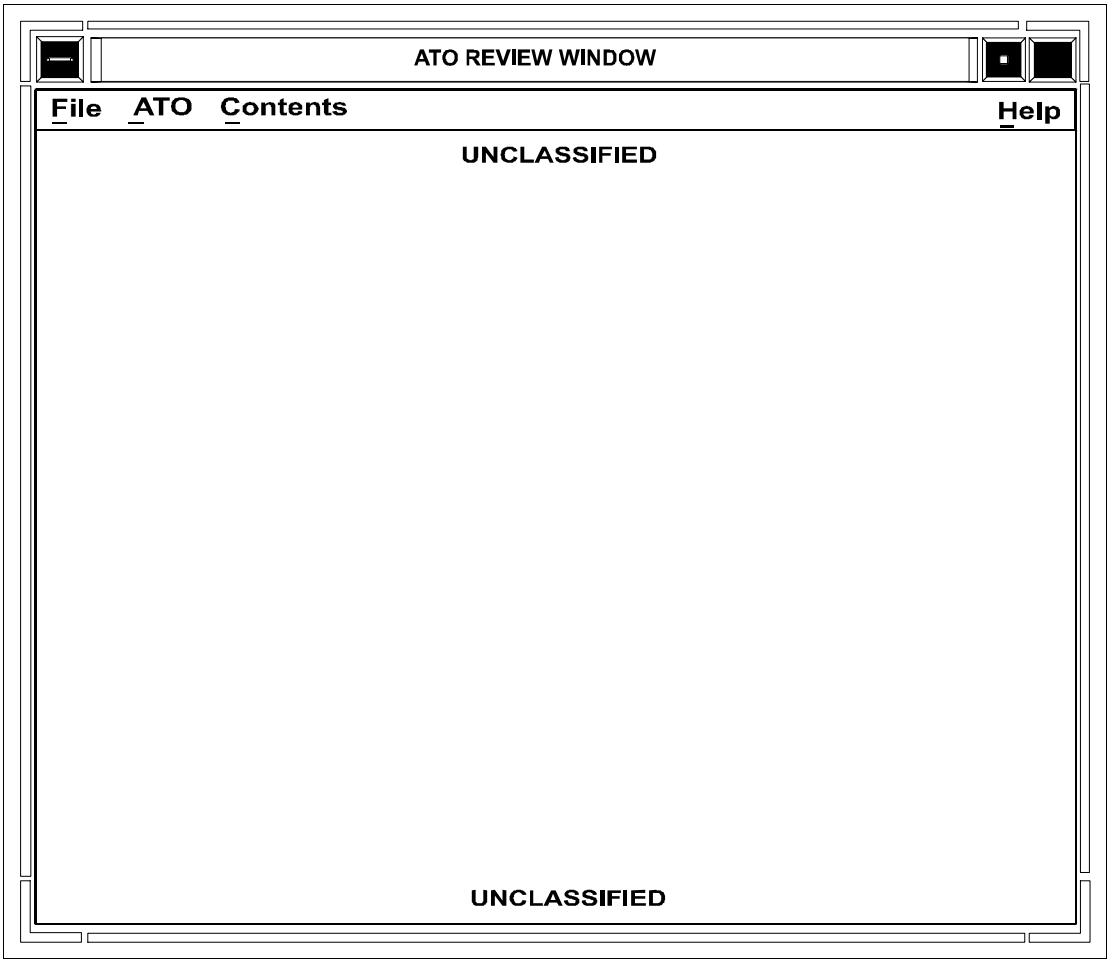

Figure 3-9. Initial GARC Window

3.5.2.1 Initialization. The GARC application is invoked by double clicking the left mouse button on the **GARC** icon within the GCCS desktop main launch window.

3.5.2.2 User Inputs. User inputs include operator actions to view the contents of the received ATOs with the text editor provided.